

Appl. No 10/664,675

Amdt. Dated

Reply to Office action of 11/18/2004

5

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

10

Listing of Claims:

1.(Currently amended) An electroluminescence wire core comprising a flexible central electrode, luminescent layer, and a transparent and conductive layer, [[on]] the outer surface of central electrode directly being 15 coated with the luminescent layer and the transparent and conductive layer, respectively [[in order]], wherein;

in the transparent and conductive layer are disposed lumninescent powder which is covered ~~granules of luminescent powder in luminescent layer wrapped by thermoplastic macromolecular polymer [[or]] and~~ synthetic resin, 20 the thermoplastic macromolecular polymer [[or]] and the synthetic resin [[being]] are transparent, insulating, and dielectric, at least two fine conductive wires wind around on outer surface of the transparent and conducting layer wound with an accessory electrode.; and the thermoplastic

macromolecular polymer includes polyvinyl chloride, polyethylene terephthalate, polypropylene, polystyrene, polysulfone, and polycarbonate, the synthetic resin includes organic silicon resin, polyurethane, polyester resin, acrylic resin, and epoxy resin;

5       the luminescent powder in the luminescent layer is made from a mixture of copper and zinc sulfide and organic substances including poly-alkylthiophene, para-phenylethyne, and poly-alkylfluorene;

the central electrode involves single non-metal wire, multiple non-metals wires which are adhered together using conductive adhesive,

10      conductive flexible tube and weaved tube made from metal and non-metal material.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

15       5. (Cancelled)

          6. (Withdrawn) A manufacturing process concerning the electroluminescence wire core as claimed in claim 1, comprising the following steps:

1) mixing luminescent powder with transparent, insulating, and  
20 dielectric thermoplastic macromolecular polymers for granulation;

2) putting the granules formed in step 1 into plastic extrusion machine, and heating it to 140~175 °C for plasticizing, the plasticized granules then being extruded out of the die orifice so as to form a smooth

luminescent layer on the outer surface of the central electrode after water cooling or air cooling process;

3) coating or covering a layer of transparent electrode on outer surface of the luminescent layer, and winding an accessory electrodes on the 5 outer surface of the layer of the transparent electrode.

7. (Withdrawn) A manufacturing process concerning the electroluminescence wire core as claimed in claim 1, including the following steps:

1) putting liquid mixture of luminescent powder and synthetic resin 10 into two or more coating machines and continuously and then agitating it, the concentration of the luminescent powder being reduced in different mixture;

2) passing the wire or conductive tube, which serving as central electrode, through an die orifice of coating machine filled with the liquid mixture of luminescent powder and resin at high speed, after extrusion coating 15 and drying process, the wire or conductive tube then conveyed to next coating machine for further extrusion coating;

3) drying the coated wire or conductive tube in oven at the temperature of 120~155°C;

4) coating or covering the outer surface of luminescent I with a layer 20 of transparent electrode, and then winding the layer of transparent electrode with accessory electrode in spirals.

8. (Withdrawn) A linear luminescent body is formed by covering a layer of transparent polymer on the surface of linear luminescent core

described in claim 1.

9. (Withdrawn) A row-arranged luminescent body is formed by making the two or more luminescent cores as claimed in claim 1 stand in a row-type, and then coating them with a layer of transparent polymer.

5           10 (Cancelled)

Appl. No 10/664,675

Amdt. Dated

Reply to Office action of 11/18/2004

**Amendments to the Drawings:**

5

The attached sheets of drawings includes changes to Figs. 1-7 and 9-10 which replace the original sheets including Figs. 1-7 and 9-10 which are added with proper cross-hatching, as required by the Examiner.

10